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This is to certify that the attached documents are an exact copy of the application for PATENT of INVENTION number 200302042, filed on August 13, 2003.

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M. MADRUGA

TO THE DIRECTOR OF THE INDUSTRIAL PROPERTY REGISTER

THE INDUSTRIAL PROPERTY REGISTER  
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9 Name of the Invention

LIFESAVING SYSTEM FOR BUILDINGS

13 List of Accompanying Documents

Description: No. of pages, 3. Claims: 11 Drawings:  
No. of pages, 1. Summary. Evidence. Fee payment receipt.

Signed by the officer, and by the applicant or representative.

14 NOTIFICATION OF PAYMENT OF CONCESSION FEE

This is to notify you that this application will be deemed to have been withdrawn if the concession fee is not paid, within the three months counted from publication of announcement of concession in the Official Industrial Property Gazette plus the ten days fixed in Article 81 of the Royal Decree of 10/10/86.

# PATENT

## SUMMARY AND GRAPHIC

Application number P 200302042

Filed on August 13, 2003

### SUMMARY (Max 150 words)

A lifesaving system for buildings that consists of a tubular device, with opened crowns or circular radial curved crowns attached to the inside wall of the tubular device, having on the inside of said crowns flexible vanes or fins through which inverted bell-form elements pass, said elements somewhat larger in size than the inner size of the crowns, and are braked or slowed as they move downwards, like the persons, animals or objects descending inside them, having a foam rubber element added at the end of the tubular device, adding an annular element whose outside perimeter is a tapered cone and curved, and which adapts to the top of the chest, and under the armpits.

Graphic

## PATENT APPLICATION

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### LIFESAVING SYSTEM FOR BUILDINGS

#### Summary

A lifesaving system for buildings that consists of a tubular device, with opened crowns or circular radial curved crowns attached to the inside wall of the tubular device, having on the inside of said crowns flexible vanes or fins through which inverted bell-form elements pass, said elements somewhat larger in size than the inner size of the crowns, and are braked or slowed as they move downwards, like the persons, animals or objects descending inside them, having a foam rubber element added at the end of the tubular device, adding an annular element whose outside perimeter is a tapered cone and curved, and which adapts to the top of the chest, and under the armpits.

## **LIFESAVING SYSTEM FOR BUILDINGS**

**FIELD OF THE INVENTION.** –For rescue of people from buildings due to fire, smoke, etc.

**STATE OF THE PRIOR ART.** - There are at present no devices for saving people trapped  
5 in buildings, particularly in tall buildings where external resources cannot be used.

**DESCRIPTION OF THE INVENTION.** The lifesaving system for buildings in the invention consists of a tubular device which can be opened lengthwise and laterally, with opened crowns or circular radial curved crowns attached to the inside wall, having on the inside of said crowns flexible vanes or fins through which inverted bell-form elements  
10 pass, said elements somewhat larger in size than the inner size of the crowns, and are braked or slowed as they move downwards, like the persons, animals or objects descending inside them.

Said tubular device may be rigid or foldable, made of fabric or of three or more cords carrying rings which in turn hold the vanes or fins crowns.

15 That tubular device and crown may be of circular or elliptical cross-section, and on one variant of the crown, the vanes or fins form two ellipses for the fitting of shoes, their inner hole of somewhat smaller size than them.

A variant uses an annular element, whose outside perimeter is a tapered cone and curved, and which adapts to the top of the chest, and under the armpits, and a similar  
20 element may be adapted around the legs, with an additional central diameter support.

The bell-shaped elements may also have a lug or flange which is flexible or of vane or fin form.

For lesser heights, the ducting can be used on a slope with just the vanes or fins for support of the back or rear. Reinforced trousers may also be used.

25 At the bottom, the vanes or fins may be closer together or stronger, to further reduce the speed of drop. A foam rubber element may be added at the end.

Reinforced gloves can be used to control descent, which can also be regulated with pressure on the flexible bell lugs.

If the tube has no side opening, gates can be added.

30 **Advantages:** Very useful, economical, simple, the equipment can be recovered and is long lasting, it saves lives and in some cases can be used to reduce phobias caused by tall buildings.

## **BRIEF DESCRIPTION OF the DRAWINGS**

Figure 1 shows a schematic, perspective and partial view of the device in the invention.

Figure 2 shows a schematic, perspective and partial view of a variant of the device.

Figure 3 shows a schematic, side and partial view of the device.

Figure 4 shows a schematic side view of a bell-shape element.

Figure 5 to 7 show a schematic plant views of different crowns.

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#### MORE DETAILED DESCRIPTION OF THE INVENTION

Figure 1 consists of the tubular device (1) which can be opened lengthwise and laterally, the foam rubber element (2), with opened crowns or circular, radial curved crowns and opened (3 and 3') attached to the inside wall, having on the inside of said crowns and radial there are flexible vanes or fins (8 and 8) through which inverted bell-  
10 form elements (6, figure 4) pass which, said elements somewhat larger in size than the inner smaller size of the crowns, are braked or slowed as they move downwards, like the persons, animals or objects descending inside them.

Figure 2 of the crown (33), the cords or flexible tubular wall made of fabric that can be folded (4), the upper support element (5), the bell-form element (6) and its ring (34).

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Figure 3 consists of the annular element (7), whose outside perimeter is a tapered cone and curved, and which adapts to the top of the chest, and under the armpits, and the vanes or fins (8 and 8').

Figure 4 consists of the bell-shaped element (6) and the vanes, lug or flange (37) and the holes (36) to introduce the legs.

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Figure 5 consists of the circular crown (33).

Figure 6 consists of the elliptical crown (35), where the vanes or fins form two ellipses for the fitting of shoes, their inner hole (9) of somewhat smaller size than them. This can be used by the more experienced people.

Figure 7 consists of the open elliptical crown (3).

## CLAIMS

1. A lifesaving system for buildings that consists of a tubular device (1), with opened crowns or circular radial curved crowns (3, 3' and 33) attached to the inside wall of the tubular device, having on the inside of said crowns flexible vanes or fins (8 and 8') through which inverted bell-form elements (6, figure 4) pass, said elements somewhat larger in size than the inner size of the crowns, and are braked or slowed as they move downwards, like the persons, animals or objects descending inside them, having a foam rubber element added at the end of the tubular device, adding an annular element whose outside perimeter is a tapered cone and curved, and which adapts to the top of the chest, and under the armpits.
2. A lifesaving system for buildings according to claim 1, wherein the tubular device is opened lengthwise and laterally.
3. A lifesaving system for buildings according to claim 1, wherein the tubular device is rigid.
4. A lifesaving system for buildings according to claim 1, wherein the tubular device is foldable and flexible.
5. A lifesaving system for buildings according to claim 1, wherein the tubular device is foldable, formed of three or more cords (4) carrying rings (35) which in turn hold the vane or fins crowns.
6. A lifesaving system for buildings according to claim 1, wherein the tubular device and crown are of circular cross-section.
7. A lifesaving system for buildings according to claim 1, wherein the tubular device and crowns are of elliptical cross-section.
8. A lifesaving system for buildings according to claim 1, wherein the crown (figure 6), has the vanes or fins forming two ellipses for the fitting of shoes, their inner hole of somewhat smaller size than them.
9. A lifesaving system for buildings according to claim 1, wherein the bell-shaped elements have a lug or flange which is flexible or of vane or fin form (37).
10. A lifesaving system for buildings according to claim 1, wherein at the bottom of the tubular device, the vanes or fins are closer together or stronger, to further reduce the speed of drop.
11. A lifesaving system for buildings according to claim 1, wherein the tubular device has gates.